HISTORICAL PERSPECTIVES OF MEDICAL INTELLIGENCE*

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IT IS HARDLY NECESSARY to state that medical intelligence can be defined, for special professional purposes, as the application of medical and biological knowledge to national defense. If we ever engaged in national *offense,* medical intelligence would apply to this also. Nor is it necessary to repeat that the work is related to the preparation for hostilities, whether impending or remote, as well as to conditions that arise after hostilities and in times of peace, chiefly but not exclusively in areas of military interest to the United States.

To an important degree, the orientation has been preventive. This direction is shown by the fact that medical intelligence activity in the Army was created in the Division of Preventive Medicine of the Office of the Surgeon General. This arrangement may have been necessary, but it was not necessarily optimal.

While it is true that by knowledge, correlation, and understanding of facts, those who do medical intelligence work aspire to save lives, the organized activity exists to support the military purposes—and hence the political purposes—of the nation. This must be recognized as the primary function.

In examining these well-known axiomatic matters, what can we learn from human experience, usually designated as history?

MEDICAL AND NON-MEDICAL INTELLIGENCE

A British scholar, Dr. Frank McLynn, studied the attempted invasions of England from the Spanish Armada (1588) to the time of Adolf Hitler (1945).[1] A reviewer made the following comment:[2]

> It is clear from what he has to say that the first weakness of the French in the eighteenth century, and indeed of almost all the would-be invaders he deals with, was poor staffwork. Again and again, expeditions were planned and often set in motion on the basis of inadequate and inaccurate intelligence, little or no knowledge of the dangers and unpredictability of the seas, and no understanding of logistics. It is extraordinary that even generals as talented as Napoleon, who would never have considered putting an army in

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> the field without thought for its supplies, was apparently willing to throw very large forces across the [English] Channel with no supply lines whatever....logistics, bad weather and disease often formed defenses more formidable than anything the [British] Navy could offer.

This mention of disease as one factor among several is to us an obvious indicator of the need for collaborative effort.

FROM 1890 TO 1940

The Spanish-American War and the construction of the Panama Canal mark our real entry into the world of foreign sicknesses. The French having failed, either because of disease, corruption, or unwise choice of a sea-level route, American know-how took over. Our engineers at first saw no need of medical participation in the planning, construction, or operation of the canal. Later an osteopath was recommended for appointment to the Panama Canal Commission.[3] The dominant admiral and general did not believe in the mosquito theory of yellow fever, nor did the Canal Commission of 1905,[4] four years after the demonstration by Walter Reed and his colleagues.

Still later, an appeal to President Theodore Roosevelt led him, very wisely, to consult Drs. William Welch of Baltimore and Alexander Lambert of New York.[5] In 1907 Dr. William C. Gorgas, remembered for the control of yellow fever in Havana, was appointed to the Third Panama Canal Commission.[6]

Famous sequelae were the control of yellow fever in the Panama Canal region and a reduction in malaria. A less famous sequel of the Spanish-American War is the terrible story of Fort Stotsenburg, situated in the foothills 66 miles northwest of Manila. This installation, characterized as the "pest hole of malaria in the United States Army," was established in 1902, soon after the War. In 1904 the hospital admission rate per 1,000 American troops was 730.[7] In 1905, in a command of 800 men, there were 377 hospitalized malaria patients.[8,9] The trouble was due to stream-breeding *Anopheles* of the *minimus* group, behaviorally different from our homegrown swamp anophelines.

Our limited participation in World War I did not require us or stimulate us to establish systematic medical intelligence activity, but in that war a French general in the Balkan campaign of 1915 is said to have telegraphed Paris that his army was immobilized—in the hospital.

FROM 1940 TO 1955

The official record of medical intelligence activity in World War II was written by my revered commander and predecessor, Col. Gaylord W. An-

derson, later director of the School of Public Health at the University of Minnesota.[10]

It is my understanding, based on conversation with informed sources, that Dr. Anderson's manuscript was notably longer than the published version and did not fail to dwell on our national unpreparedness in medical intelligence. Much of this discussion was deleted by the editors. The original is unobtainable and I have been told that it was destroyed. But the discerning reader will observe even in the published version that, with respect to medical intelligence activity, when we entered World War II we were naked as the day we were born.[11,12] One of the first of the officers selected for medical intelligence duty told me that he had never previously heard of this entity.

The achievements of the Medical Intelligence Division and its transient precursors in the Office of the Surgeon General, A.U.S., are described in Dr. Anderson's history. The most conspicuous and enduring—not necessarily the largest—is a series of printed Technical Bulletins Medical (TB MED), which are medical and sanitary surveys of countries and areas.[13]

In this enterprise the most interesting parts proved to be the collection and preparation of the data; the most vexatious were publication and timely dissemination. Apart from these surveys, world maps of disease were prepared, conscientiously but inexpertly.[14] Much other work was completed, in the form of summaries, Joint Army Navy Intelligence Surveys (JANIS), and other reports, many of them classified, and some in direct support of military plans or operations. At the same time, medical intelligence officers were appointed to the European theater of operations and to the China-Burma-India theater.

The welcome end of the war was followed by retrenchment, atrophy, and administrative relocation. For a decade the medical intelligence activity owed much of its survival to Arthur R. Turner, M.D., supported by Surgeons General and a diminishing staff. The record of the subsequent period, if it has been compiled, has not been made public. A feature of the entire narrative since 1943 was the attempted capture and absorption by other government agencies, both military and civilian, aggressive, and qualified or unqualified.

Some of the administrative reorganizations may merely have been metamorphoses necessary for maturation, survival, and increased usefulness.

The postwar decline in medical intelligence was paralleled by a lapse in our affection for tropical medicine, with which this country has had an intermittent romance since the Spanish-American War. In both realms of knowledge we are now enjoying a more perfect union.

DIFFICULTIES

It is obvious that the support which medical intelligence activity receives from the military and from the civilian authority is dependent on or influenced by our national attitudes. Herein lie the help and also a part of the difficulty. It is therefore important that this aspect should be considered.

As a nation we are ambivalent toward knowledge. We simultaneously tend to admire it and to mistrust it. We lean toward what is practical—especially what appears to be immediately practical—and are apt to be chilly toward whatever is theoretical or general or fundamental.

In 1835 Alexis de Tocqueville wrote: "There is no class... in America, in which the taste for intellectual pleasures is transmitted with hereditary fortune and leisure and by which the labors of the intellect are held in honor. Accordingly, there is an equal want of the desire and the power of application to these objects. A middling standard is fixed in America for human knowledge."[15] On other pages, de Tocqueville wrote that "perfection of the administrative system must not be sought for in the United States"[16] and that "in no country in the world do the citizens make such exertions for the common weal."[17]

In his book, *The American Mind,* Dr. H.S. Commager, a leading American historian, wrote: "The 19th century American venerated the law but tended to be lawless and to show disrespect for lawyers."[18] In the 19th century, an American court determined that "a physician is any man who declares himself to be such." Hence medical schooling or training were unnecessary and the requirements for licensure were cancelled. As late as 1911 a speaker before the Association of American Medical Colleges declared: "To say to a man that because he has not had certain specified training 'you shall not be permitted to study medicine' is distinctly un-American and undemocratic and should not be tolerated."[19]

In 1943, in the Division of Medical Intelligence, Army of the United States, one occasionally heard the term "longhair." This word was applied to scholars, professors, scientists working on obscure subjects such as acarology or agrostology, and in general to anyone who knew something that medical practitioners didn't. Comic cartoons occasionally used a stock character, the absent-minded professor. Poor, badly dressed, often but not necessarily a foreigner, he was eccentric or crazy, not too clean, and either a genius or a fool.

While we honor advanced education, we honor technical training as much, or even more, and we show to elementary and secondary teachers the poor compliment of underpayment.

Irrelevant or trivial problems have not rarely been dumped on intelligence services. In a front-page discussion of official (nonmedical) intelligence services, the *New York Times* on August 9, 1987, wrote of amateurism and bungling.

Disbelief in the need for special knowledge and training has occasionally brought with it the phenomenon that "anyone can get into the act." In this respect the great classic publication is a report on Morocco, issued by the U.S. Tariff Commission, ca. 1943. It said that in Morocco, in the early hours of the morning, dew gathers on the leaves of the trees, and in the dewdrops the germs of malaria are generated.

The public has tended to confound intelligence work with espionage and sometimes to regard it as verging on immorality. We all remember the remark attributed to Henry L. Stimson, Secretary of War under President Franklin D. Roosevelt, that gentlemen do not read each other's mail.

My lamented colleague, Captain Stewart C. Thomson, an elder of the Second Presbyterian Church of Rockford, IL, became a medical intelligence officer and a very good one. In his midwestern home lived his two aged unmarried aunts. In reply to their understandable desire to know what his military duties were, he had written, "I'm in liaison work, but don't tell anyone." A year later he was on leave. One aunt drew him aside and said, "Since I was unfamiliar with the word *liaison,* I looked it up in this dictionary, which we've had since Grandfather's time." The big book said that a liaison is an immoral connection between a man and a woman. "Now Stewart," she continued, "I am not hopelessly old-fashioned and I understand that in an army someone must do this kind of thing. But why did they pick an elder of the Presbyterian Church?"

Somewhere in this catalogue of miscellaneous attitudes, observations, and events, or in their totality, we are likely to have the reason why the United States has never been famous for intelligence activity and the reason why our intelligence activity has needed repeated revival, reinforcement, and encouragement. A prominent suspect is our anti-intellectualism, despite the fact that medical intelligence is practical in its purpose. But even in the presence of these obstacles and many many others, the work must go on and will go on.

AN ANECDOTE

Perhaps you will countenance, in closing, an anecdote that may point toward practicality.

During World War II, when our forces captured items of enemy equipment, samples were sent to technical intelligence agencies for examination

and record. Medical equipment came to the Medical Intelligence Division, Office of the Surgeon General of the Army. It immediately became evident that the Japanese preferred to receive medicine by hypodermic injection, even when oral preparations were available. One of our officers, skilled in medical Japanese, faithfully transcribed and translated the labels on the ampules. He also noted the maker's mark on the bottom of the ampule. He noticed that all Japanese ampules came from one factory. Finding the address in the Tokyo telephone directory, he transmitted it to the Air Force, which destroyed the factory.

I hope that we are preserving telephone directories.

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